

**Department of Mining Engineering, VNIT, Nagpur (India)**



**Dr. Rajendra Yerpude,**  
**M.Tech(Mine Planning & Design)**  
**Ph.D.(Mining), M.B.A., LL.B.**  
**Professor in Mining Engg and Dean(P&D)**  
**Former -Head , Ex-Registrar**

**Brief details:**

1. Name: **DR. RAJENDRA RAMCHANDRA YERPUDE**
2. Designation : Professor
3. Qualifications: M.Tech(Mine Planning & Design) ISM; Ph.D.(Mining), ISM ; MBA, LL.B.
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6. Professional Experience:

S.No	Organization	Designation	Period
1	RKN. Engineering College	Lecturer in Mining Engg.	2 yrs
2	Visvesvaraya Regional College of Engg.	Lecturer in Mining Engg (Sr and Selection Gr)	13 yrs
3	Visvesvaraya National Institute of Technology. (VNIT)	Assistant /Associate Professor in Mining Engg	9 years
4	VNIT	Professor in Mining Engg contd.	1.8 yr
5	VNIT	Registrar (Additional charge)	2.7 yr
6	VNIT	Dean(Planning and Develop.)	Since July 2016

Other Field Experience:

SN	Organization	Period
1	Western Coalfields Ltd.	3 years
2	Indian Bureau of Mines	2.5 years

## 7. Research Areas:

- System Engg., mathematical and statistical applications to mining Engg. Modelling applications. Computer applications to mining engineering and management , simulation, computer graphics, virtual reality
- Mine safety Engg., Economics of Mining Engineering, Mine Environment and rock mechanics

## 8. Supervision/Guidance to Ph.D and M.Tech projects

(a)

SN	Name of Candidates	Title of research work	Ph.D./M.Tech( by research)	Remarks
1	Mr. M.D. Uttarwar	Investigation and Evaluation of Cast Blasting Technique in Surface Coal Mines in India	Ph.D.	Completed ( 2011)
2	Mr. Yogesh G. Kale	Development of Environmental Audit System for Opencast Mines	Ph.D	Completed ( 2014)
3	Mr. I. L.Muthreja.	Development of guidelines for waste dumping in surface Coal Mines of WCL in Chandrapur and Wani areas in Wardha Valley	Ph.D	Completed ( 2014)
4	Mr Anupan Kher	Safety information and decision support System for underground coal mine	Ph.D	Completed ( 2016)
5	Mr. Arun Chachane	Application of Orebody modeling techniques for effective mine planning	M.Tech (by research)	Completed ( 2011)

Two multidisciplinary Ph.D scholars are working one in Civil Engg and other in Electronics Engg.

## 9. Research projects

SN	Title of Project	Funding Agency	Year of start & total period	Status Started or completed or in progress
1	MODROB Development of Mines Systems and Design Lab	MHRD	2004	Completed
2	Monitoring fire status in underground old galleries driven under the Wardha river of converted Majri Opencast coal mine	WCL	2005	Completed
3	Investigations on influence of geotechnical characteristics on design of benches and slopes in opencast mines of Wardha Valley Coalfields	MHRD	2005	Completed
4	Energy conversion of exhaust mine fan air	WCL	2006	Completed

5	Investigations on use of OB material for underground stowing of MOIL mines	MOIL	2011	Project is ongoing
6	Health impacts of residential exposure to particulate matter from opencast mines in Maharashtra, India	Newcastle UK/Govt. Medical College/ VNIT	2007	Project discontinued
7	Risk and Vulnerability Investigations for Disaster Control due to mining and other industries in Wardha river vicinity and Chandrapur area (MS)	NDMA/ Coal India	2010	Proposal submitted to Agency
8	Developing electronic set up for Monitoring Mine Fan and ventilation in the vicinity	VNIT	--	Project formulation is in progress

## 10. Member of Professional bodies/societies

- ISEE International Society of Explosives Engineers, USA
- Institute of Engineers
- ISTE
- MEA
- IMEJF

## 11. Publications:

Particulars	Total No. of Research Papers
International Journals	6
National Journals	20
National /International Conferences etc.	20

### Some latest publications:

1. Uttarwar, Yerpude RR, An appraisal of blast casting techniques in Surface coal mines using case studies, International Society of Explosive Engineers (IEEE) annual seminar, Feb-8-10, 2009, Denver Colorado.
2. M. Uttarwar, Yerpude RR Improving productivity through Overburden Cast Blasting: A case study of Indian surface coal mine, The Indian Mining and Engg Journal, Mar, 2010, pp 81-86, Also presented in National Workshop.
3. M. Uttarwar, Yerpude RR, Overburden cast blasting with angled drilling- an evaluation for improving productivity of Indian Surface Coal Mines, JI of Mines, metals & fuels, VOI 58, No6 June 2010, pp 147-151
4. Chachane A.S., Yerpude R.R., Integrated concept of effective mine planning using ore body modeling The Indian Mining and Engg Journal, Vol 49, Dec. 2010, pp 7-18
5. M. Uttarwar, Yerpude RR, Pre-splitting- an abet to overburden cast blasting for improving dragline productivity in Indian Surface coal mines JI of Mines, metals & fuels, VOI 58, No7 July 2010, pp 201-206
6. Muthreja IL, Yerpude RR, Use of Geogrids for Improving Coal Mine Waste Dump Stability, Proceedings of GEOSYNTHETICS INDIA'11 International Conference, International Geosynthetics Society, 23-24 Sept. 2011, IIT Madras, pp 111-117.
7. Muthreja IL, Yerpude RR, Dr J L Jethwa Application of Geo-Grid Reinforcement Techniques for Improving Waste Dump Stability in Surface Coal Mines: Numerical Modeling and Physical Modeling, International Journal of Engineering Inventions ISSN: 2278-7461, www.ijejournal.com Volume 1, Issue 1(August 2012) PP: 16-23
8. Y.G. Kale, R.R. Yerpude, Environmental audit system for opencast mines- monitoring approach for green mining, JI of Mines, metals & fuels, VOI 61, No 1 & 2 Jan- Feb 2013, pp 5-18
9. Aruna D.Tete, Dr. A.Y.Deshmukh, Dr. R.R.Yerpude, Velocity of detonation (VOD) measurements technique practical approach, International Journal of Engineering and Technology, 2 (3) (2013) 259-265 ©Science Publishing Corporation, www.sciencepubco.com/index.php/IJET
10. Paper accepted for Presentation: A. D. Ghare, I. L. Muthreja, R. R. Yerpude, L. K. Dhote, G. G. Manekar, "Head loss characteristics for hydrotransport of alternative stowing material in underground mines" National

Conference on "Water Resources Management – Achievements Challenges" (WRM-AC 2014) to be held at Jamia Millia Islamia University, New Delhi, on 22nd March, 2014.

11. R.R. Yerpude, Aruna D. Tete and A.Y. Deshmukh Design and implementation of electronic sensor for velocity-of-detonation measurement of cartridge explosive and comparison with Dautriche Method, Int. J. Mining and Mineral Engineering, Vol. 7, No. 2, 2016, pp 113-125
12. Anupam Anant Kher R.R Yerpude, Application of Forecasting Models on Indian Coal Mining Fatal Accident (Time Series) Data, International Journal of Applied Engineering Research ISSN 0973-4562 Volume 11, Number 2 (2016) pp 1533-1537
13. Dr. R. R. Yerpude, Deepak V. Walke, Significance of Strata Monitoring Instruments in Roof Fall Risk Assessment of an Underground Coal Mine. International Journal of Scientific and Research Publications, Volume 5, Issue 6, June 2015 ISSN 2250-3153, pp2-8
14. Dr R.R. Yerpude Anupam Anant Kher, "Safety Information and Decision Support System for Underground Coal Mine" Indian Mining & Engineering Journal. Vol 54 No 2 Feb 2015, pp 21-27.
15. Dr. R. R. Yerpude, Deepak V. Walke" Investigation in to the Risk Factors Associated with Roof Falls in Underground Coal Mine" International Journal of Engineering Research & Technology, Vol. 3 - Issue 10 (October - 2014) e-ISSN: 2278-0181, pp 1249-1257
16. Anupam Anant Kher R.R Yerpude, Application of Fuzzy Time Series Forecasting Model for Indian Underground Coal Mining Fatal Accident Data " International Journal of Engineering &Technology (IJET)
17. Liladhar Dhote, Aniruddha Ghare, Ishwardas L. Muthreja and Rajendra Yerpude, Comparative characterization of overburden material vis-a-vis sand as an alternative for stowing in underground mines, JMMF, Vol. 64, No.3, MARCH 2016, pp 48-53
18. Dr Rajendra Yerpude, Dr Manish Uttarwar. Potential of the Overburden Cast Blasting Technique in Indian Surface Coalmines – A Modular Approach and its Financial Implications, 11th International Symposium on Rock Fragmentation by Blasting (FRAGBLAST11) held in Sydney, Australia (24-26 Aug. 2015, pp 655-664

## 12. Consultancy Area and undertaken :

Ground vibration studies, Blast design, Slope stability, RMR etc.

## 13. Brief account of other activities:

- **Deputation to UK under Higher academic British Link** :Visited Camborne School of Mines, Royal School of Mines and University of Newcastle from 5<sup>th</sup> June to 3<sup>rd</sup> July 2004 to Study and carrying out investigations into mining and reclamation under academic link through British Council UK
- Worked as Co-Chairman of session, National seminar of Indian Geological Society Nov 2004
- One of the Editors, International Symposium on Environmental Issues of Mineral Industry” organised by VNIT, University of Exeter, UK under British Council Link Jan -11-15, 2006
- Visited University of Newcastle (UK) from 16-22 Nov.05 for project meeting to discuss various issues related to epidemiological studies of mine dust on the surrounding people for formulating the collaborative project.
- Visited University of New South Wales(UNSW), Sydney, Australia -Visited Dept of Mining Engg. and Dept. of Mechanical Engineering on 25th Aug. 2015 and had the discussions with faculty members.
- Visited to Nanyang Technological University(NTU), Singapore: Visited Dept. of Civil and Environment Engg. on 27th Aug. 2015 and had the discussions with faculty members.
- Worked as active administrative core member of Central Counselling Board(AIEEE-2010), HQ VNIT. Instrumental in handling, accounts, legal and RTI cases, participated in admission procedure preparation and monitoring.
- Worked as Professor-Incharge-of Technical Festival AXIS-2011, VNIT.
- Worked as I/c Registrar of VNIT from Nov.2013- June-16
- Presently working as Dean(Planning and Development)

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